



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/693,541

10/24/2003

Donald R. Moody

018300-001521

2310

7590

01/25/2006

MICHAEL G. JOHNSTON  
MOORE & VAN ALLEN  
SUITE 800  
2200 WEST MAIN STREET  
DURHAM, NC 27705

EXAMINER

LAUX, JESSICA L

ART UNIT

PAPER NUMBER

3635

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,541	<b>Applicant(s)</b> MOODY ET AL.	
	<b>Examiner</b> Jessica Laux	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 33 is/are rejected.
- 7) ☒ Claim(s) 4, 9 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/06/2004</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1: Figures 1 and 3

Species 2: Figures 4 and 6.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

Art Unit: 3635

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Michael Johnston on January 12, 2006 a provisional election was made without traverse to prosecute the invention of species 1, claims 1-22, and 33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Objections***

Claims 4, 9, and 14 objected to because of the following informalities: "less than about 1.2 mm" is indefinite. Appropriate correction is required.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the insulating material

Art Unit: 3635

disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3635

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 17-21, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Macomber (2457056).

In regards to claim 1: A metal truss, comprising: a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end; a first elongated bottom chord member (10), the ends of the first bottom chord member connected to the top chord members adjacent the second ends of the top chord members (Figure 1); a second elongated bottom chord member (11), the ends of the second bottom chord member connected to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 1); and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 2: A metal truss as recited in claim 1, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (Figure 3).

In regards to claim 3: A metal truss as recited in claim 1, wherein the connected top chord members form an apex of an angular shape (Figure 1), and with the second bottom chord member, form a triangle (Figure 1).

In regards to claim 5: A metal truss as recited in claim 1, further comprising at least one tensile element (19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Figure 6).

In regards to claim 17: A metal truss, comprising: a plurality of elongated top chord members (12 & 13), the top chord members connected to each other end to end so that the connected top chord members have two free ends; a first elongated bottom chord member (10), the ends of the first bottom chord member connected to the top chord members adjacent the free ends of the connected top chord members; a second elongated bottom chord member (11), the ends of the second bottom chord member connected to the top chord members adjacent the free ends of the connected top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3); and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 18: A metal truss, comprising: a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end; a first elongated bottom chord member (10); means for connecting (15) the first bottom chord member to the top chord members adjacent the second ends of the top chord members; a second elongated bottom chord

Art Unit: 3635

member (11); means for connecting (17) the second bottom chord member to the first bottom chord member such that the second bottom chord member is spaced from the first bottom chord member; and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 19: A metal truss as recited in claim 18, wherein the first bottom chord member connecting means includes fasteners (15) for connecting the ends of the first bottom chord member directly to the top chord members.

In regards to claim 20: A metal truss as recited in claim 18, wherein the first bottom chord member connecting means includes a heel truss member (15) vertically fastened between each end of the first bottom chord member and the top chord members.

In regards to claim 21: A metal truss as recited in claim 18, wherein the second bottom chord member connecting means includes at least one tensile element (19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Figure 6).

In regards to claim 33: A metal truss, comprising: a plurality of elongated top chord members (12 & 13), the top chord members connected to each other end to end so that the connected top chord members have two free ends; a first elongated bottom



Art Unit: 3635

chord member (10); means for connecting the first bottom chord member to the top chord members adjacent the second ends of the top chord members (15), a second elongated bottom chord member (11); means for connecting the second bottom chord member to the first bottom chord member such that the second bottom chord member is spaced from the first bottom chord member (17), and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056) in view of Ruppel (2201504).

In regards to claim 7: Macomber teaches a metal truss comprising a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end; a first elongated bottom chord member (10), the ends of the first bottom chord member connected to the top chord members adjacent the second ends of the top chord members; a second

Art Unit: 3635

elongated bottom chord member (11), the ends of the second bottom chord member connected to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3); and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member, but does not teach a plurality of trusses and wall frames wherein the trusses are adapted to be erected upon a building system frame such that the second bottom chord member spans at least two wall frames and is connected to the top ends of the respective wall frames. Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to the top ends of the respective wall frames (Figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber have a plurality of the trusses be erected on wall frames as taught by Ruppel, as this is common in the art as a way to put a roof structure over a space enclosed by walls.

In regards to claim 8: A metal truss as recited in claim 7 above, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (Macomber Figure 3).

In regards to claim 10: A building system as recited in claim 7, further comprising at least one tensile element (Macomber 19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Macomber Figure 6).

In regards to claim 12: Macomber teaches a metal truss comprising a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end, a first elongated bottom chord member (10), the ends of the first bottom chord member connected to the top chord members adjacent the second ends of the top chord members, a second elongated bottom chord member (11), the ends of the second bottom chord member connected to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3), and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member, but does not teach a plurality of wall frames wherein the trusses are erected upon the wall frames and roofing material fastened to the top chord members. Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to

Art Unit: 3635

the top ends of the respective wall frames (Figure 3); and roof material fastened to the top chord members (Figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber to be erected on wall frames and to have roofing material fastened to the top chord members, as taught by Ruppel, as this would provide an enclosed roof system over a room to protect the interior of the walls from damage due to rain.

In regards to claim 13: A metal truss as recited in claim 12, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (Macomber Figure 3).

In regards to claim 14: Macomber discloses a truss made of metal as in the claim 12 above. Macomber does not address the thickness of the metal comprising the truss. Applicant has not disclosed that having the metal be a specific thickness provides an advantage, solves any stated problem or is for any particular purpose. Moreover, it appears that the truss of Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Macomber such that the thickness of the metal comprising the top and bottom chord members and the at least one web member to be less than about 1.2 mm because such a modification would have been considered a mere design consideration which fails to patentably distinguish over Macomber.

In regards to claim 15: A building as recited in claim 12, further comprising at least one tensile element (Macomber 14) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Macomber Figure 6).

Claims 4, and 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056).

In regards to claims 4, and 9: Macomber discloses a truss made of metal as in the claims 1 and 7 above. Macomber does not address the thickness of the metal comprising the truss. Applicant has not disclosed that having the metal be a specific thickness provides an advantage, solves any stated problem or is for any particular purpose. Moreover, it appears that the truss of Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Macomber such that the thickness of the metal comprising the top and bottom chord members and the at least one web member to be less than about 1.2 mm because such a modification would have been considered a mere design consideration which fails to patentably distinguish over Macomber.

Claims 6, 11, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2201504) in view of Bertrand (4279112).

In regards to claims 6, 11, and 22: Macomber discloses a metal truss as in the claims above. Macomber does not disclose insulating material disposed between the

Art Unit: 3635

first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it would have been obvious at the time the invention was made to modify Macomber have insulation at the chord members because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056) in view of Ruppel (2201504) as applied to claim 12 above, and further in view of Bertrand (4279112).

In regards to claim 16: Macomber in view of Ruppel discloses a metal truss as in claim 12 above. Macomber in view of Ruppel does not disclose insulating material disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it would have been obvious at the time the invention was made to modify Macomber to have insulation at the chord members

Art Unit: 3635

because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Friday, 8:30am to 4:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JL  
01/18/2006

  
Naoko Slack  
Primary Examiner